

Variable electronic shutter in CMOS imager with improved anti smearing techniques

Abstract of Disclosure

A leakage compensated snapshot imager provides a number of different aspects to prevent smear and other problems in a snapshot imager. The area where the imager is formed may be biased in a way that prevents photo carriers including electrons and holes from reaching a storage area. In addition, a number of different aspects may improve the efficiency. The capacitance per unit area of the storage area may be one, two or more orders of magnitude greater than the capacitance per-unit area of the photodiode. In addition, a ratio between photodiode capacitance and storage area capacitance is maintained larger than 0.7.

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